

Claims

1. A pigment whose particles have a length of from 2 μm to 5 μm , a width of from 2 μm to 2 μm and a thickness of from 50 nm to 1.5 μm and a ratio of length to thickness of at least 2 : 1, the particles having a core of a metallically reflecting material having two substantially parallel faces, the distance between which is the shortest axis of the core, comprising
- (a), optionally, on one parallel face of the core, an SiO_y layer wherein $0.95 < y \leq 2.0$, especially $0.95 < y \leq 1.80$,
- (b), on one parallel face of the core or, if an SiO_y layer is present, on the SiO_y layer, an SiO_x layer wherein $0.03 \leq x \leq 0.95$, especially $0.05 \leq x \leq 0.5$, very especially $0.10 \leq x \leq 0.30$, and
- (c), on the SiO_x layer, an SiO_z layer, wherein $0.95 < z \leq 2.0$, especially $1.0 \leq z \leq 2.0$.
2. A pigment according to claim 1, comprising
- (a), optionally, on one parallel face of the core, an SiO_y layer, wherein $0.95 < y \leq 1.80$, especially $1.0 \leq y \leq 1.80$, very especially $1.40 \leq y \leq 1.80$,
- (b), on one parallel face of the core or, if an SiO_y layer is present, on the SiO_y layer, an SiO_x layer wherein $0.03 \leq x \leq 0.95$, especially $0.05 \leq x \leq 0.5$, very especially $0.10 \leq x \leq 0.30$, and
- (c), on the SiO_x layer, an SiO_z layer, wherein $1.0 < z \leq 2.0$, especially $1.4 \leq z \leq 2.0$, very especially $z = 2.0$.
3. A pigment according to either claim 1 or claim 2, wherein the metallically reflecting material is selected from Ag, Al, Au, Cu, Cr, Ge, Mo, Ni, Ti, Zn, alloys thereof, graphite, Fe_2O_3 and MoS_2 .
4. A pigment according to claim 3, wherein the thickness of the core is from 20 to 100 nm, preferably from 40 to 60 nm.
5. A pigment according to any one of claims 1 to 4, wherein the thickness of the SiO_x layer (b) is from 5 to 200 nm, preferably from 5 to 100 nm.
6. A pigment according to any one of claims 1 to 5, wherein the thickness of the SiO_y layer (a) is from 20 to 500 nm, preferably from 100 to 500 nm.

7. A method for producing the pigment according to claim 1, comprising the following steps:
 - a) vapour-deposition of a separating agent onto a carrier to produce a separating agent layer,
 - 5 b) vapour-deposition of an Al layer onto the separating agent layer,
 - c) optionally, vapour-deposition of an SiO_y layer onto the Al layer,
 - d) vapour-deposition of an SiO_x layer onto the Al layer or, if present, onto the SiO_y layer, wherein $0.95 \leq y \leq 1.80$, especially $1.0 \leq y \leq 1.80$, very especially $1.1 \leq y \leq 1.50$,
 - e) optionally, vapour-deposition of an SiO_y layer onto the SiO_x layer,
 - 10 f) dissolution of the separating agent layer in a solvent,
 - g) separation of the SiO_x -coated aluminium flakes from the solvent.
8. A pigment obtainable by the method of claim 7.
- 15 9. A composition comprising a pigment according to any one of claims 1 to 6, or 8.
10. The use of a pigment according to any one of claims 1 to 6, or 8 in paints, textiles, ink-jet printing, cosmetics, coating compositions, plastics, printing inks and in glazes for ceramics and glass.